

Title: OPTICAL CONFIGURATION FOR IMAGING-TYPE  
OPTICAL ENCODERS

Inventors: Toshitaka Shimomura et al.

Docket No.: MEIP122170

Fig. 1

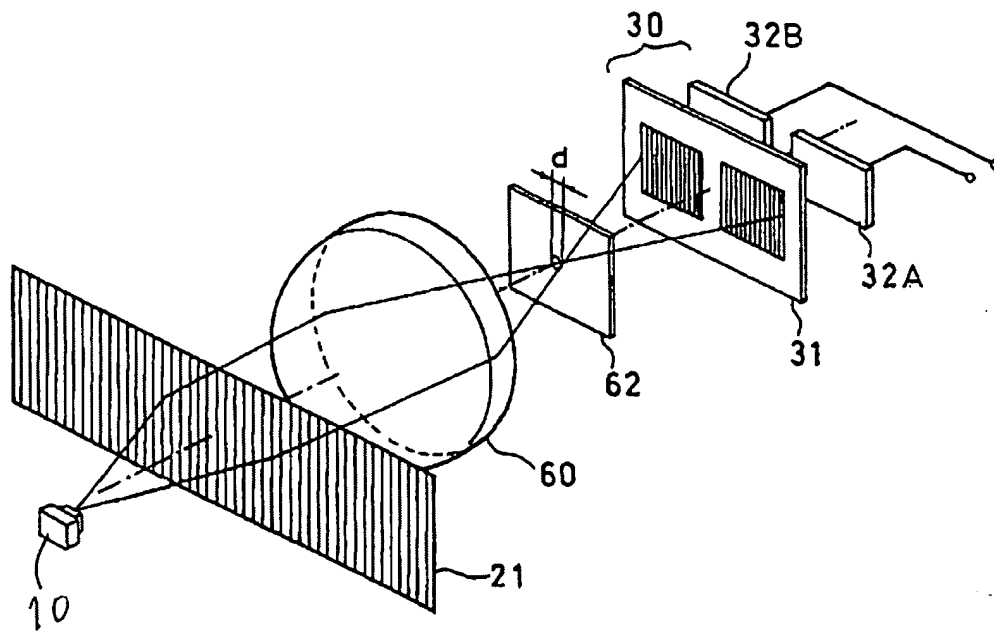
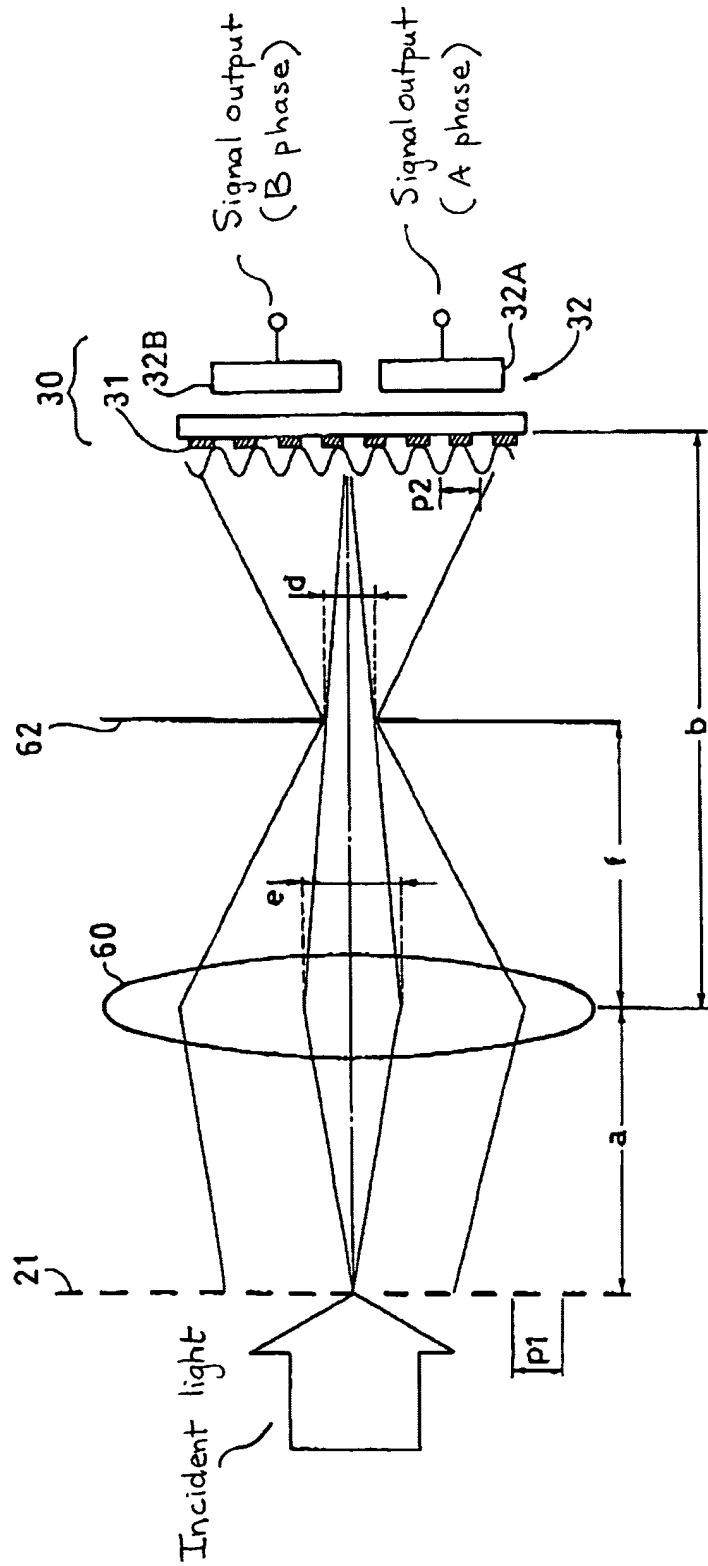


Fig. 2



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[illegible]

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Outer diameter

Effective focal length

Fig. 4

Dia. (mm)	EFL (mm)
1.0	0.8
1.0	1.0
1.5	1.5
2.0	2.0
2.5	2.5
3.0	3.0
3.5	3.5
4.0	4.0
4.5	4.5
5.0	5.0
5.5	5.5
6.0	6.0
6.5	6.5
7.0	7.0
7.5	7.5
8.0	8.0
8.5	8.5
9.0	9.0
9.5	9.5
10.0	10.0
10.5	10.5
11.0	11.0
11.5	11.5
12.0	12.0
12.5	12.5
13.0	13.0
13.5	13.5
14.0	14.0
14.5	14.5
15.0	15.0
15.5	15.5
16.0	16.0
16.5	16.5
17.0	17.0
17.5	17.5
18.0	18.0
18.5	18.5
19.0	19.0
19.5	19.5
20.0	20.0
20.5	20.5
21.0	21.0
21.5	21.5
22.0	22.0
22.5	22.5
23.0	23.0
23.5	23.5
24.0	24.0
24.5	24.5
25.0	25.0
25.5	25.5
26.0	26.0
26.5	26.5
27.0	27.0
27.5	27.5
28.0	28.0
28.5	28.5
29.0	29.0
29.5	29.5
30.0	30.0
30.5	30.5
31.0	31.0
31.5	31.5
32.0	32.0
32.5	32.5
33.0	33.0
33.5	33.5
34.0	34.0
34.5	34.5
35.0	35.0
35.5	35.5
36.0	36.0
36.5	36.5
37.0	37.0
37.5	37.5
38.0	38.0
38.5	38.5
39.0	39.0
39.5	39.5
40.0	40.0
40.5	40.5
41.0	41.0
41.5	41.5
42.0	42.0
42.5	42.5
43.0	43.0
43.5	43.5
44.0	44.0
44.5	44.5
45.0	45.0

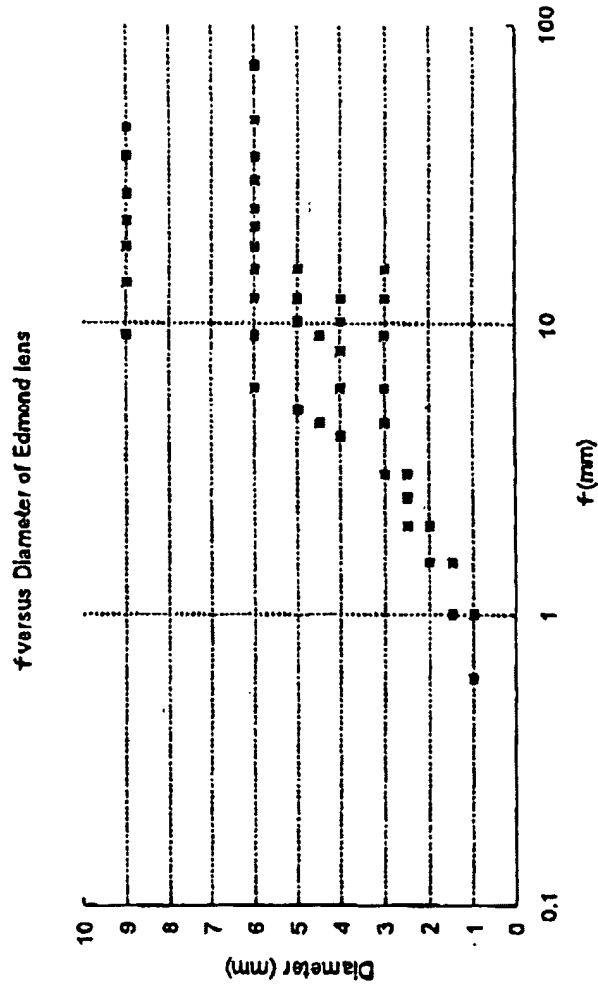
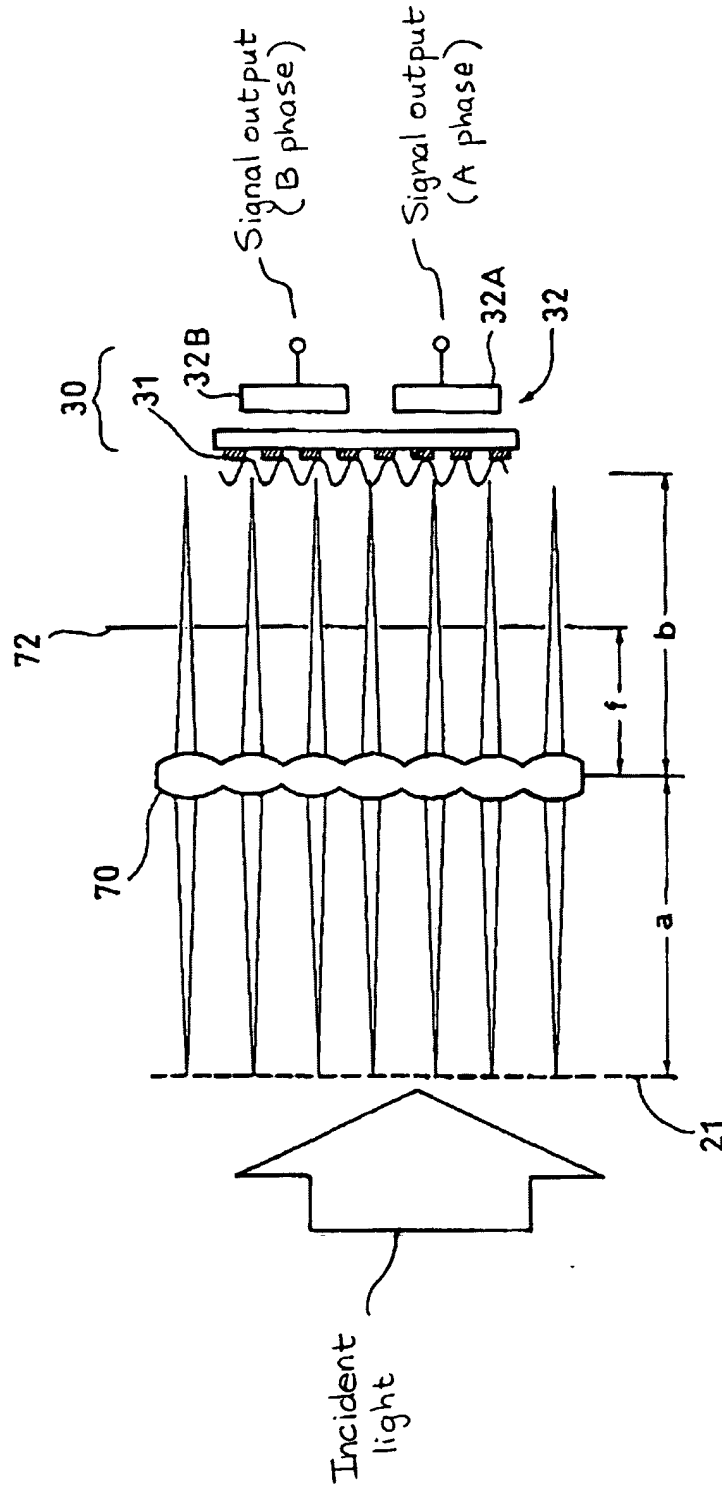


Fig. 5



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Fig. 6

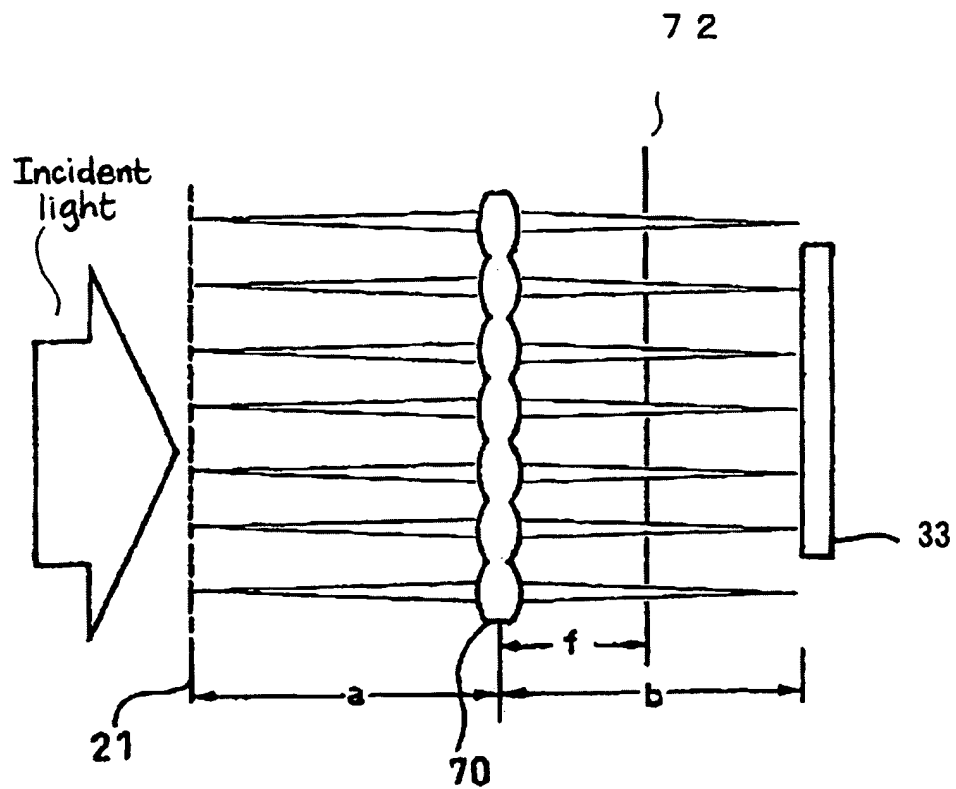


Fig. 7

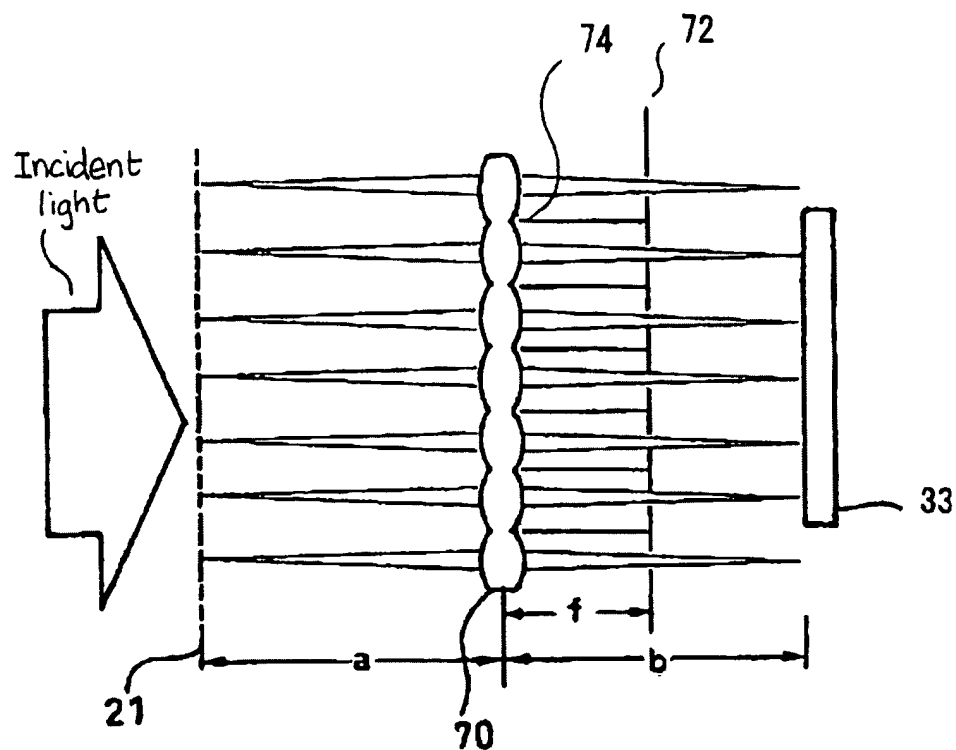
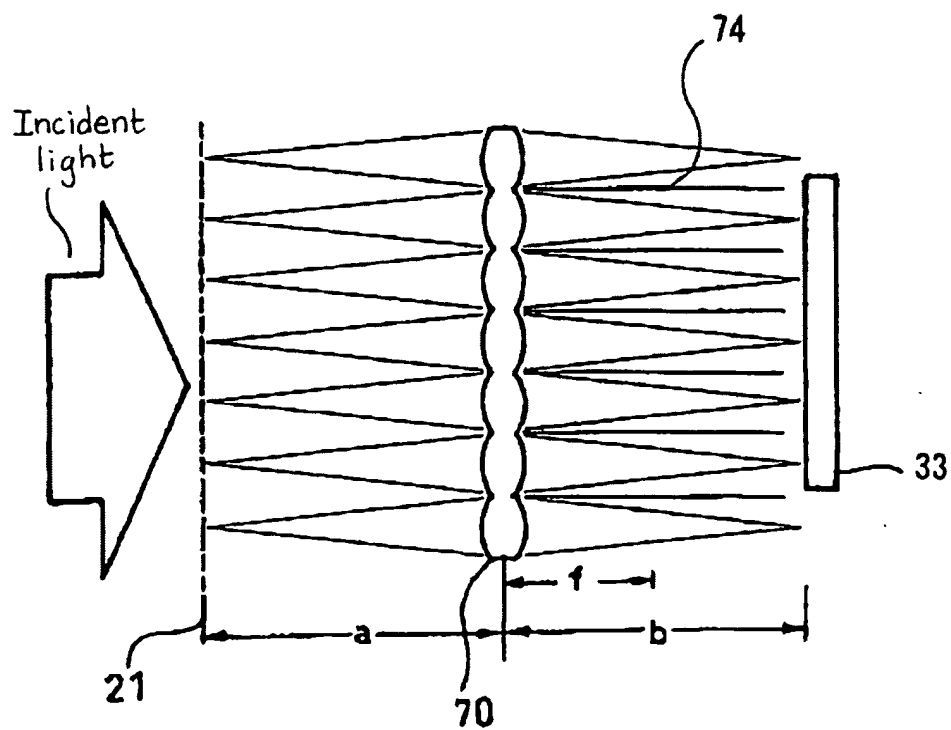


Fig. 8



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Fig. 9

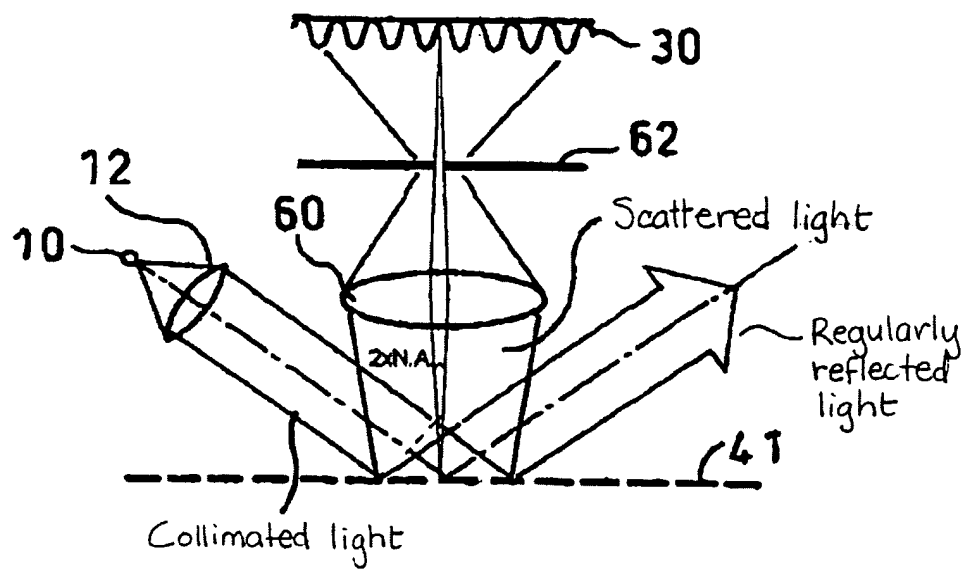
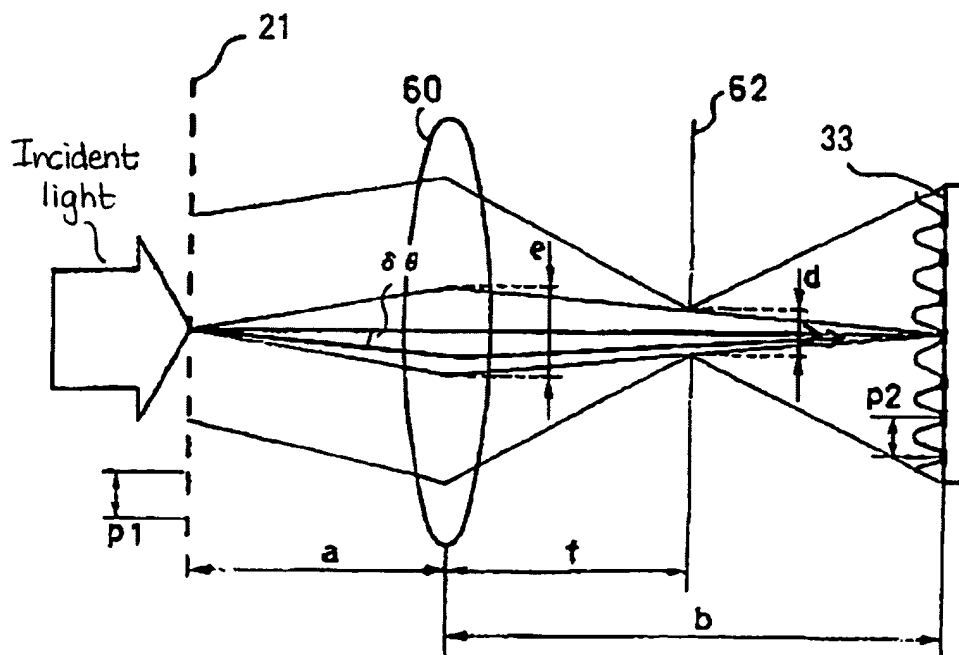


Fig. 10





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Fig. 11

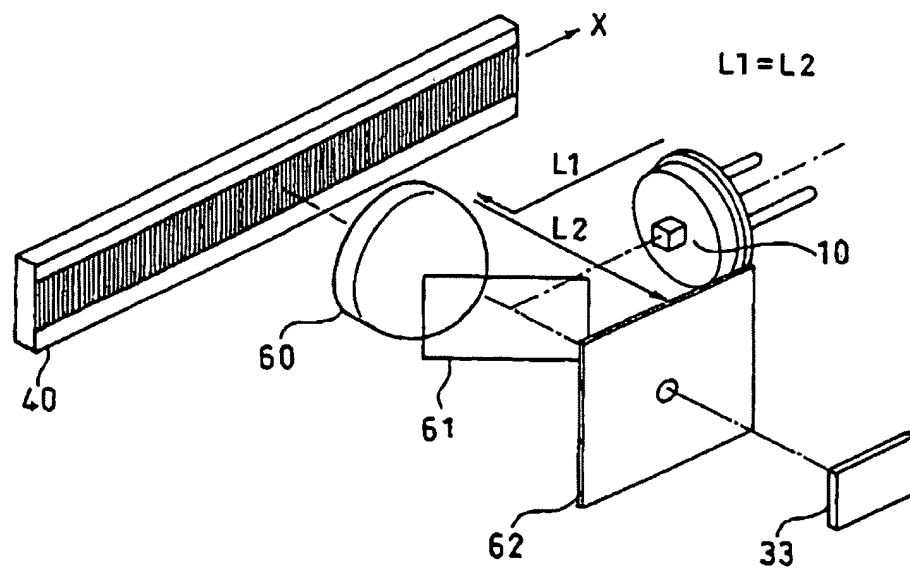


Fig. 12

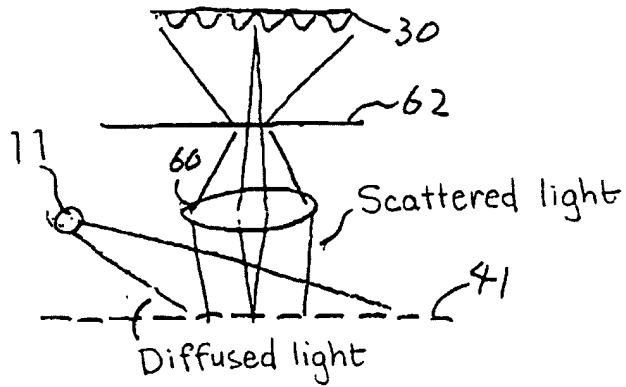


Fig. 13

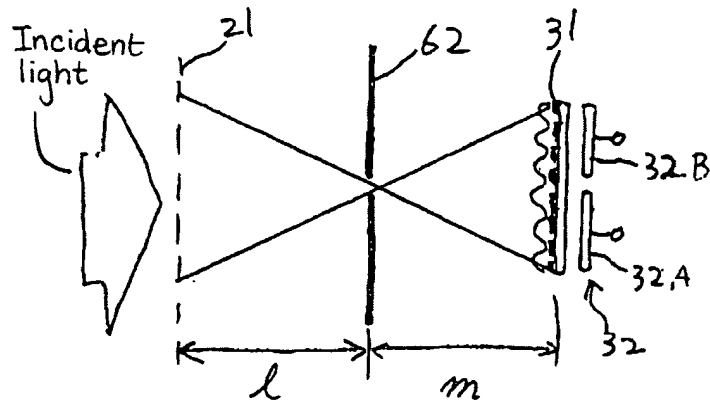


Fig. 14

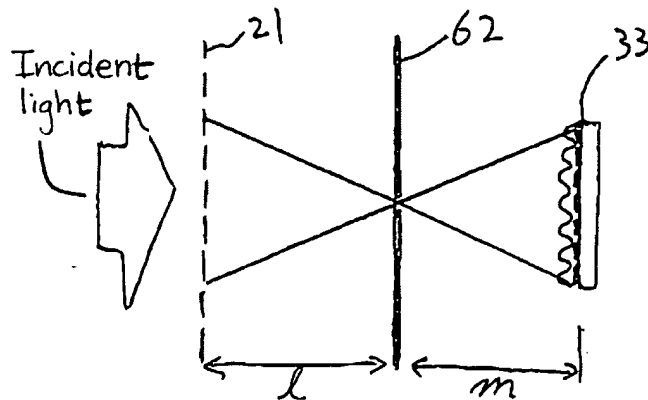
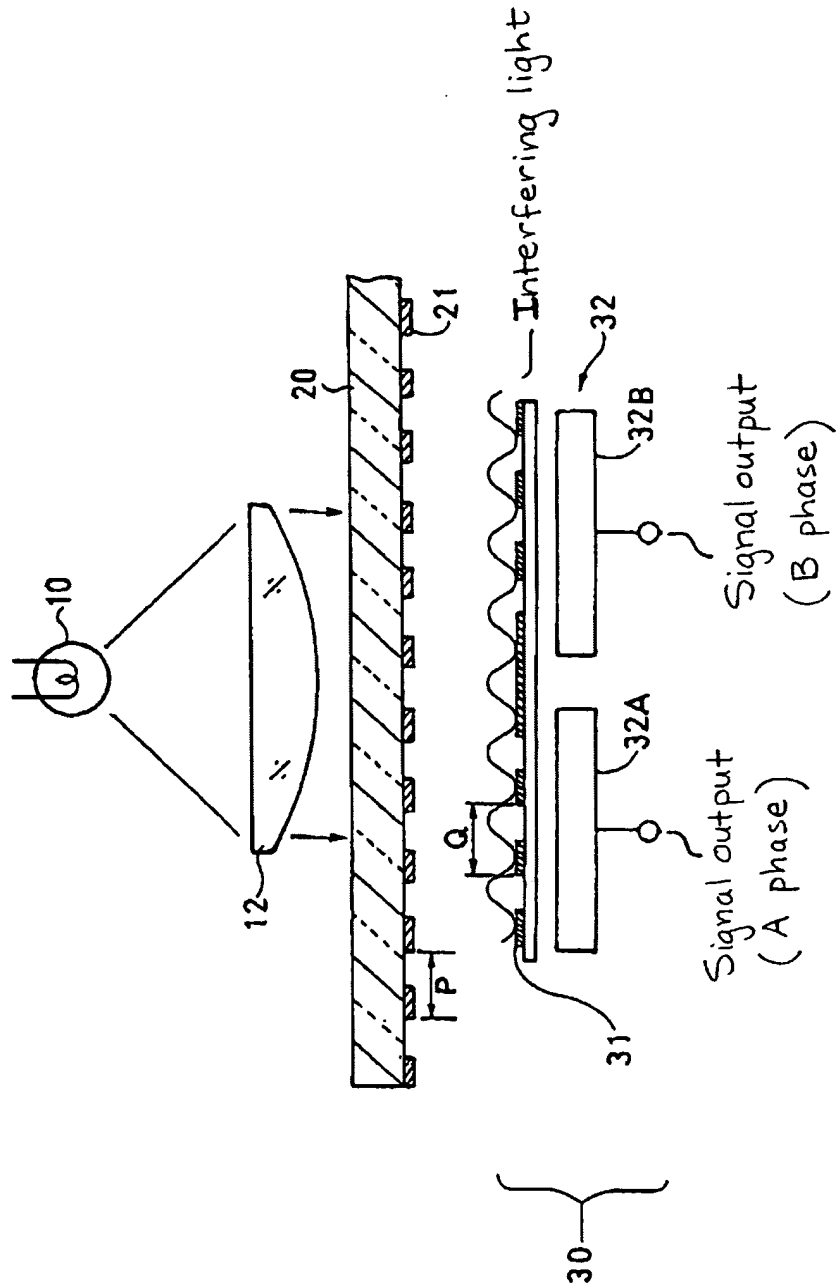


Fig. 15

Prior Art



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Fig. 16

Prior Art

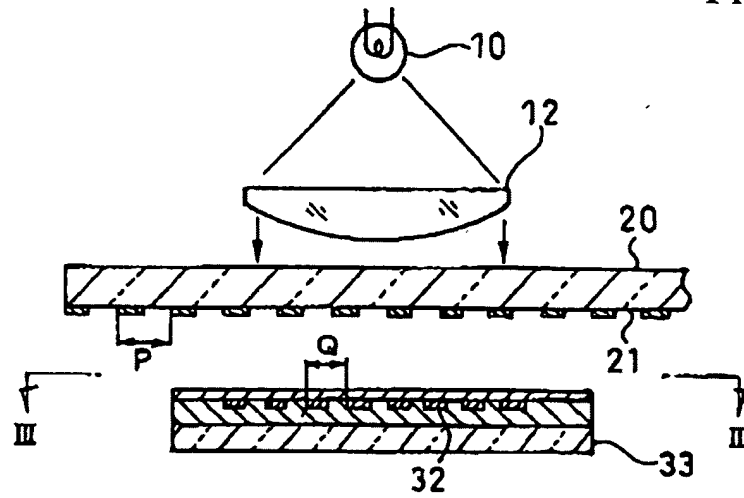


Fig. 17

Prior Art

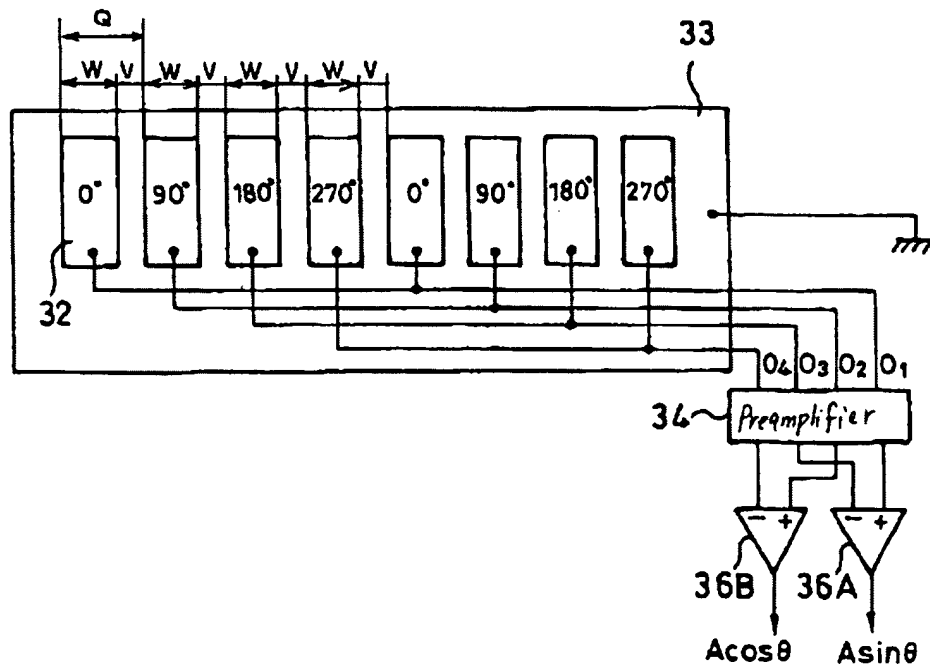


Fig. 18

Prior Art

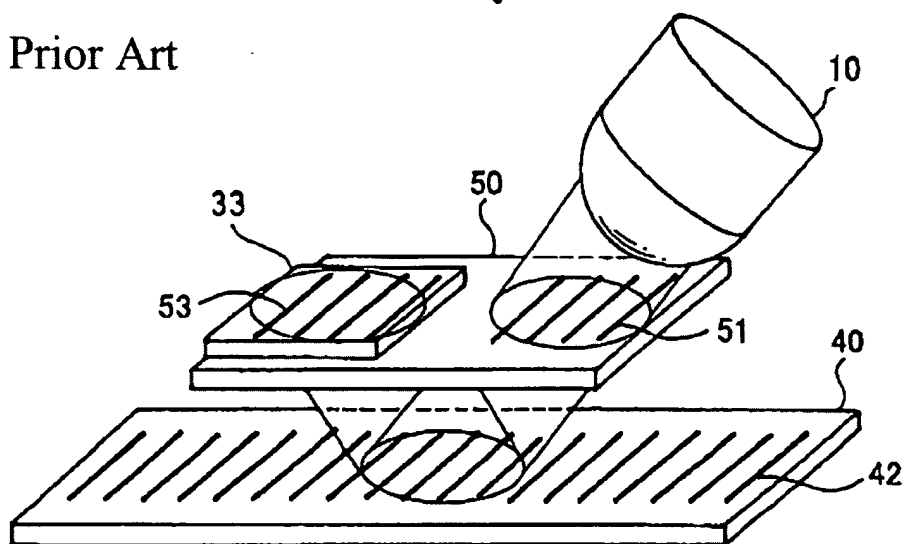
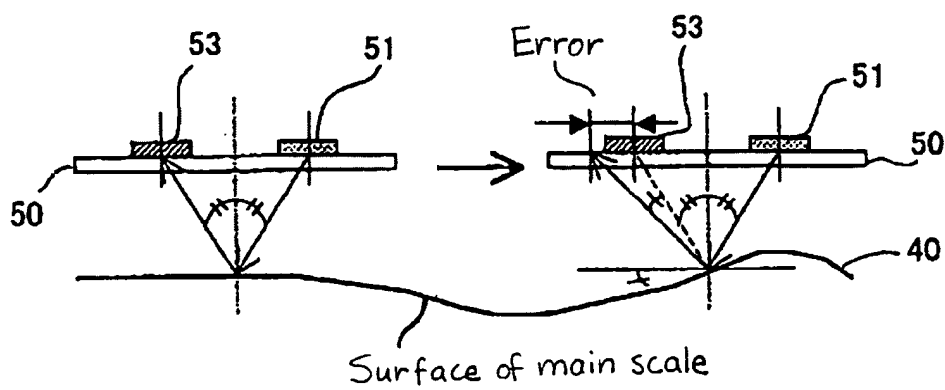


Fig. 19

Prior Art



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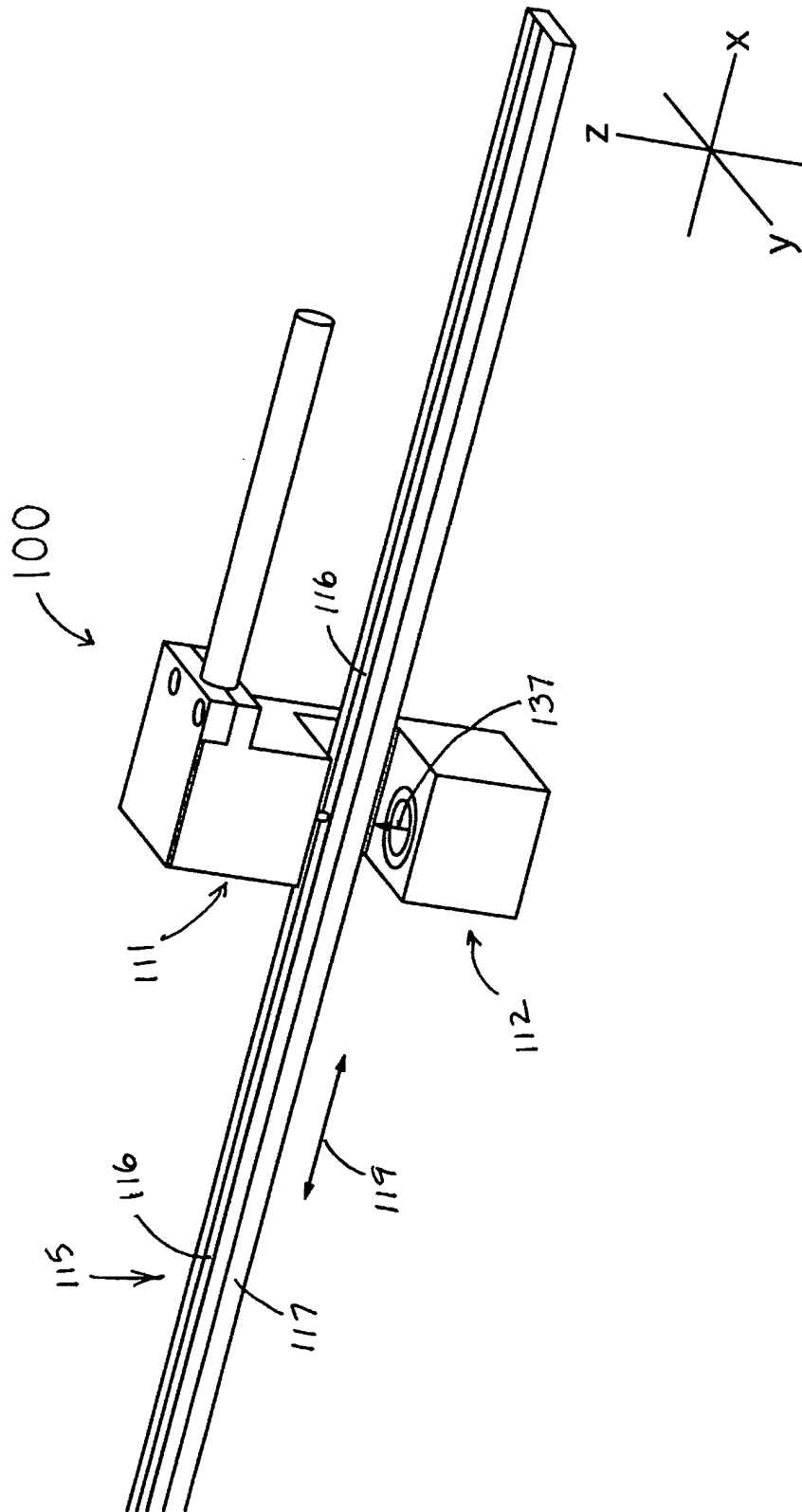


Figure 20

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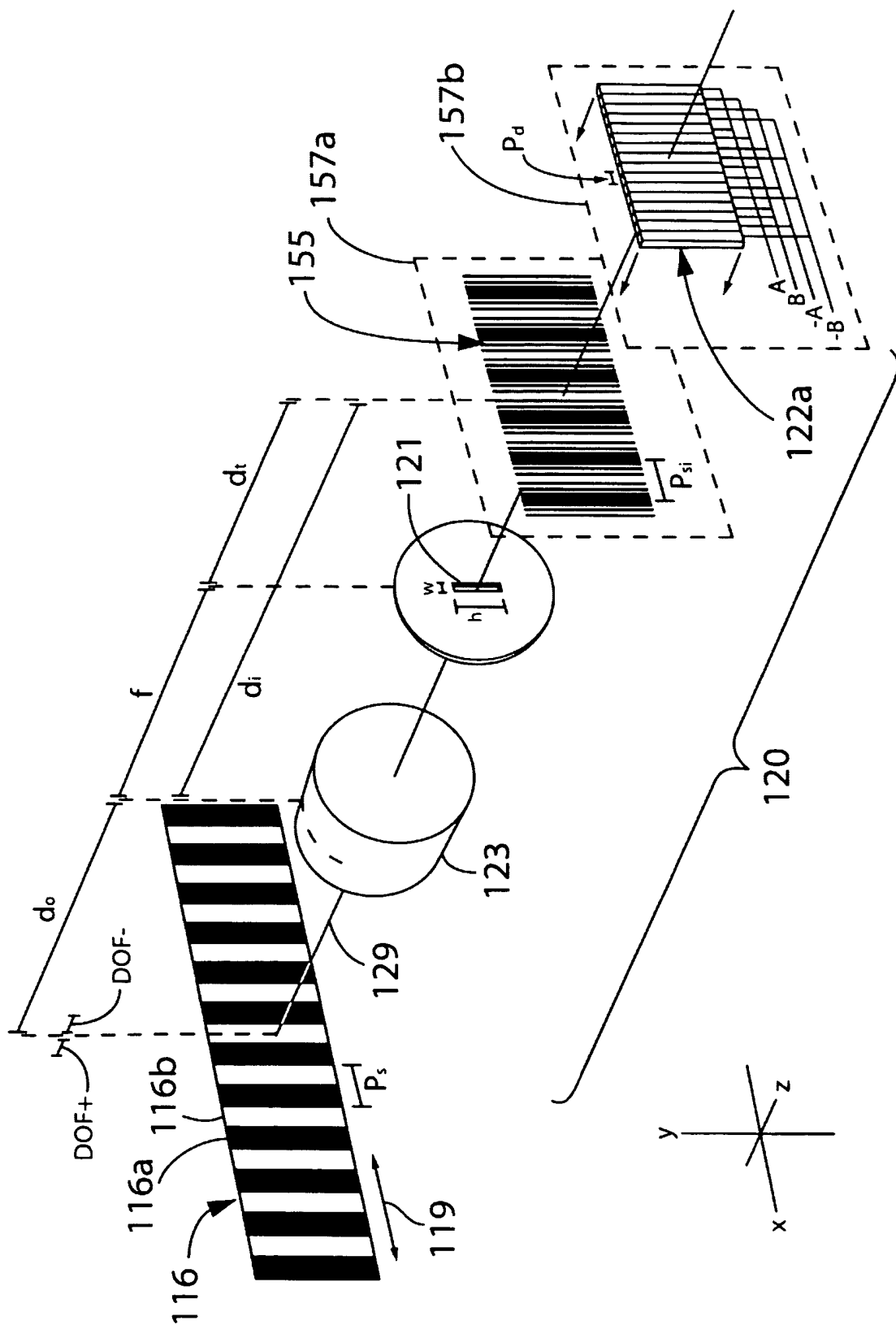


Figure 21

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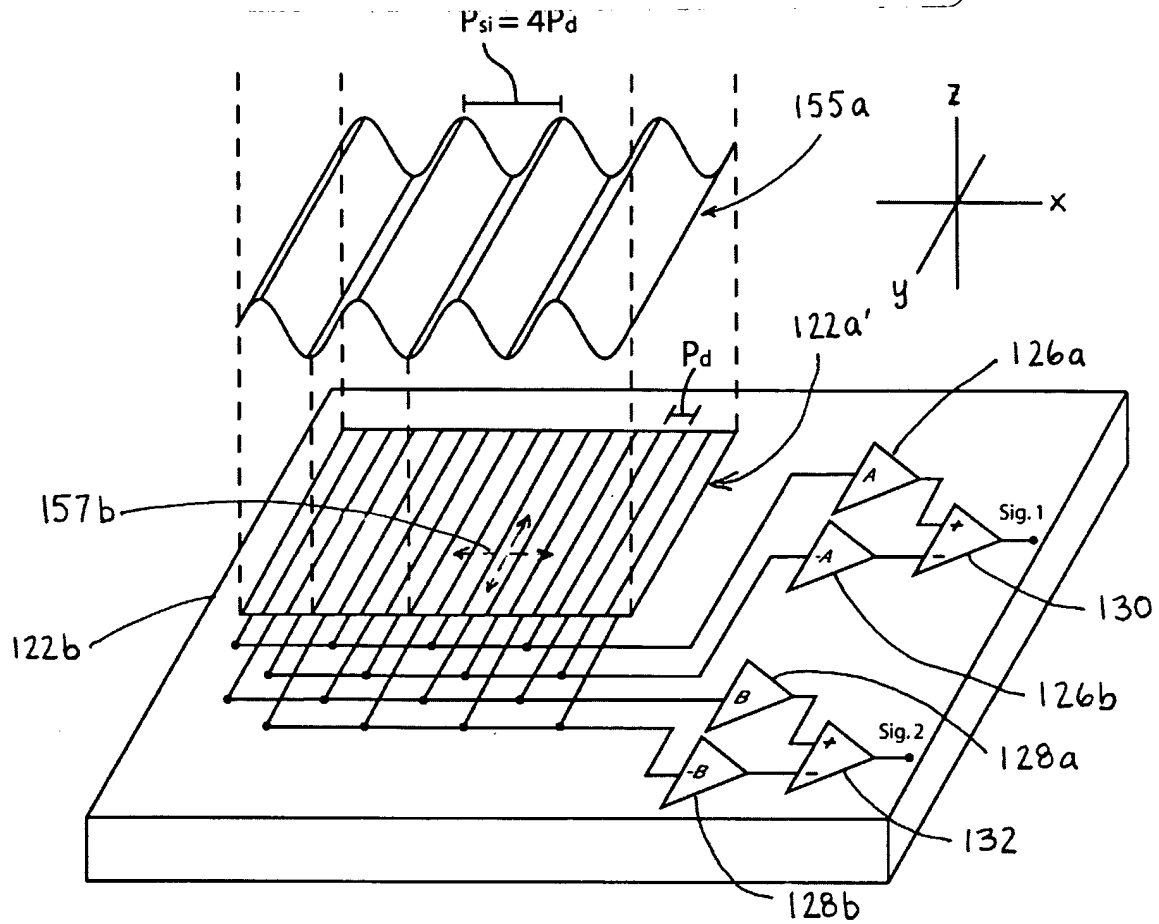


Figure 22

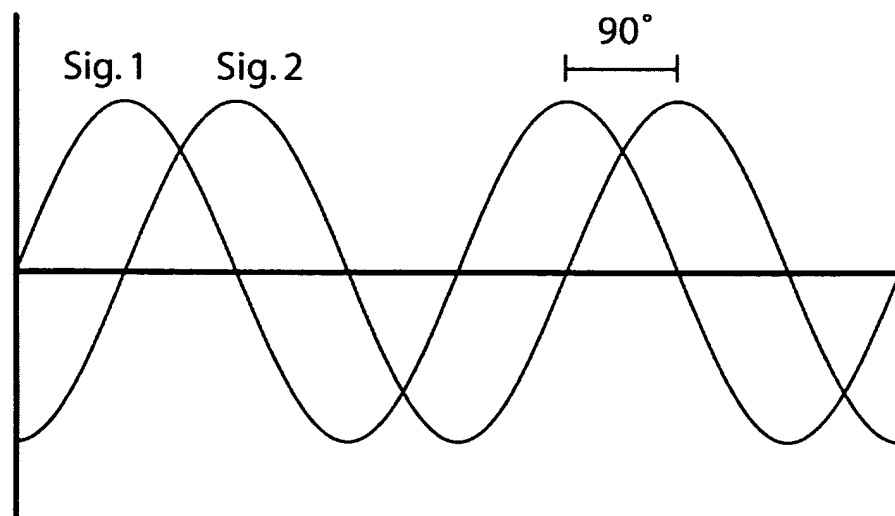
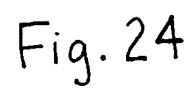


Figure 23





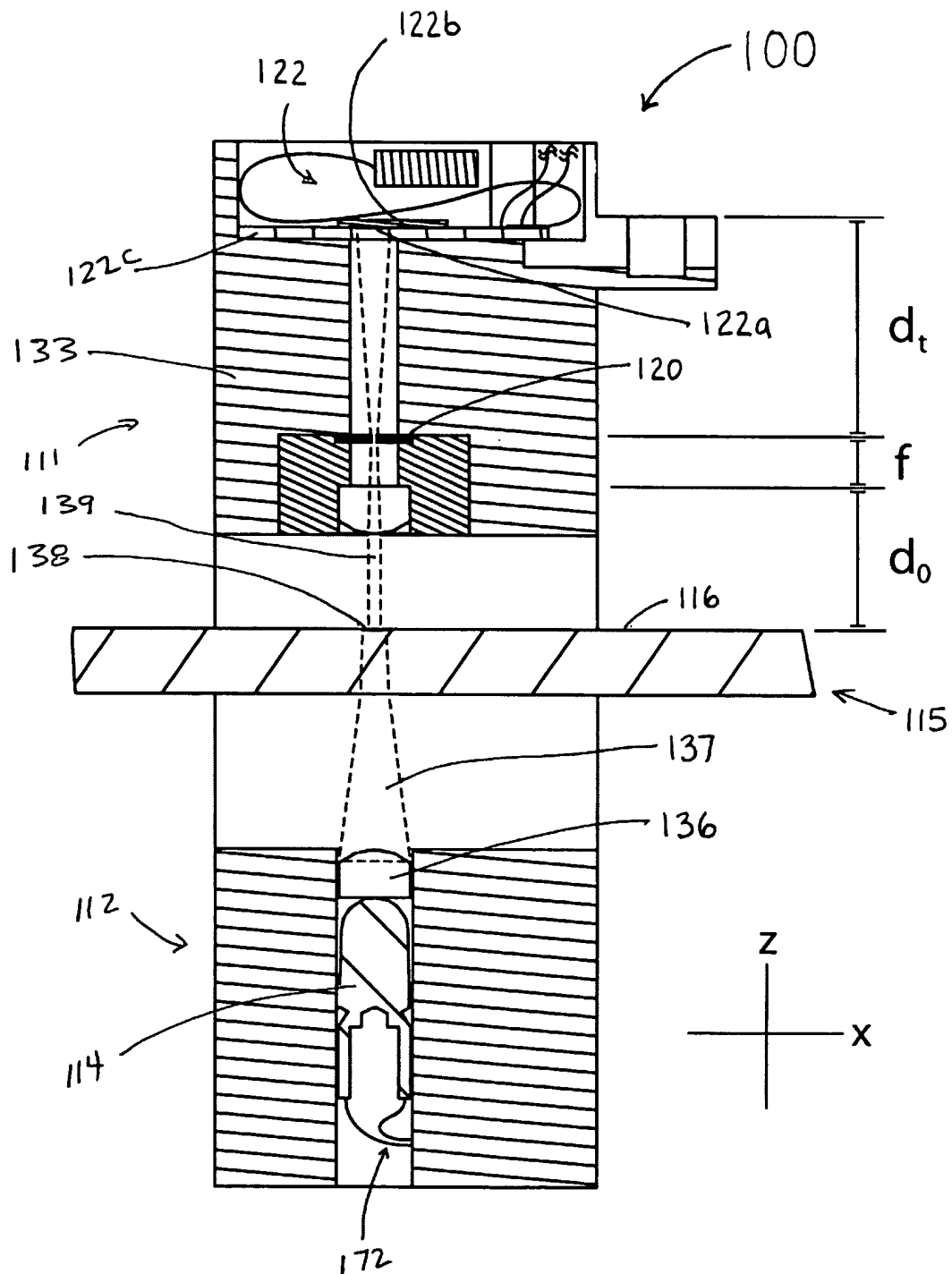


Fig. 25

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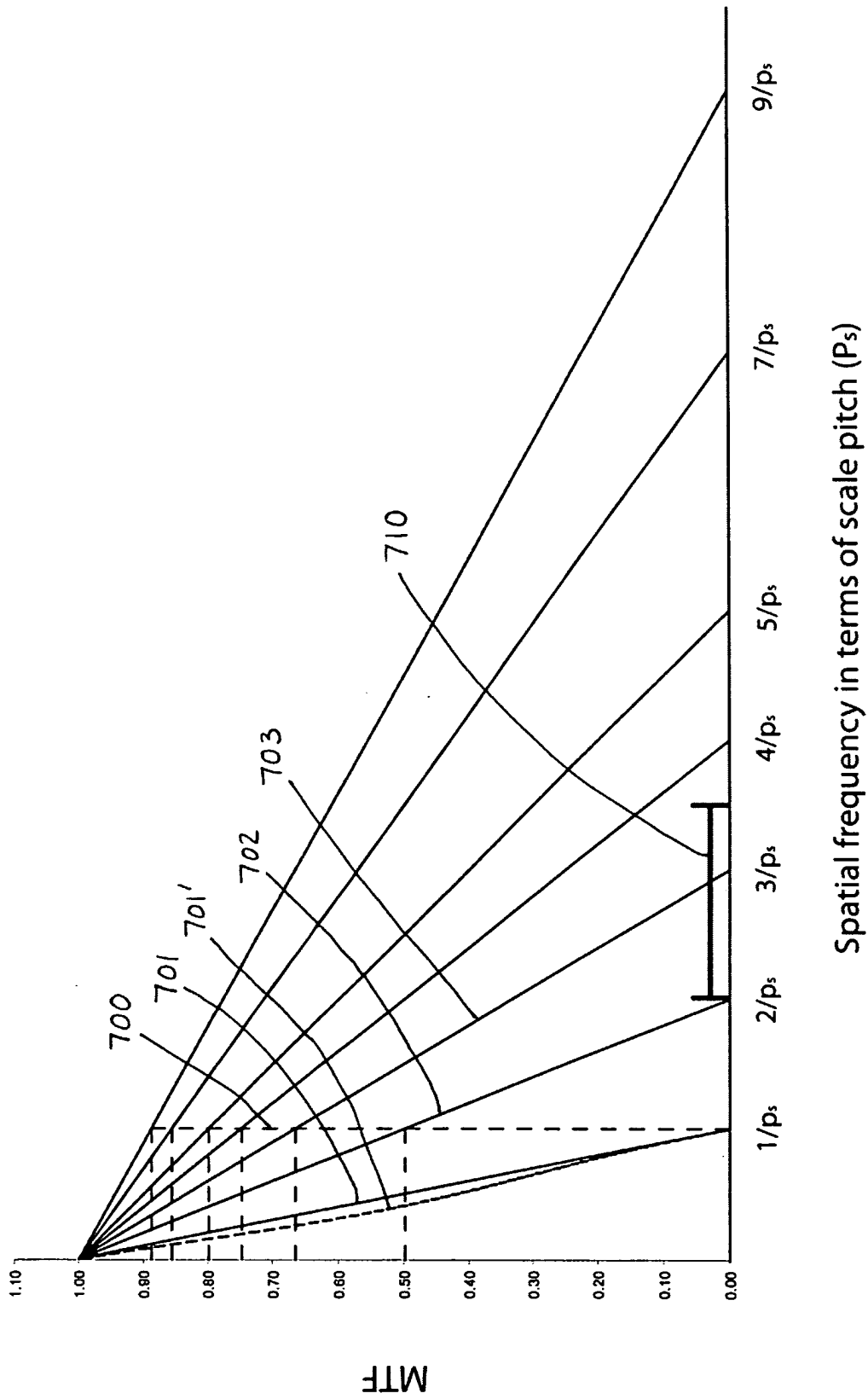


Figure 26

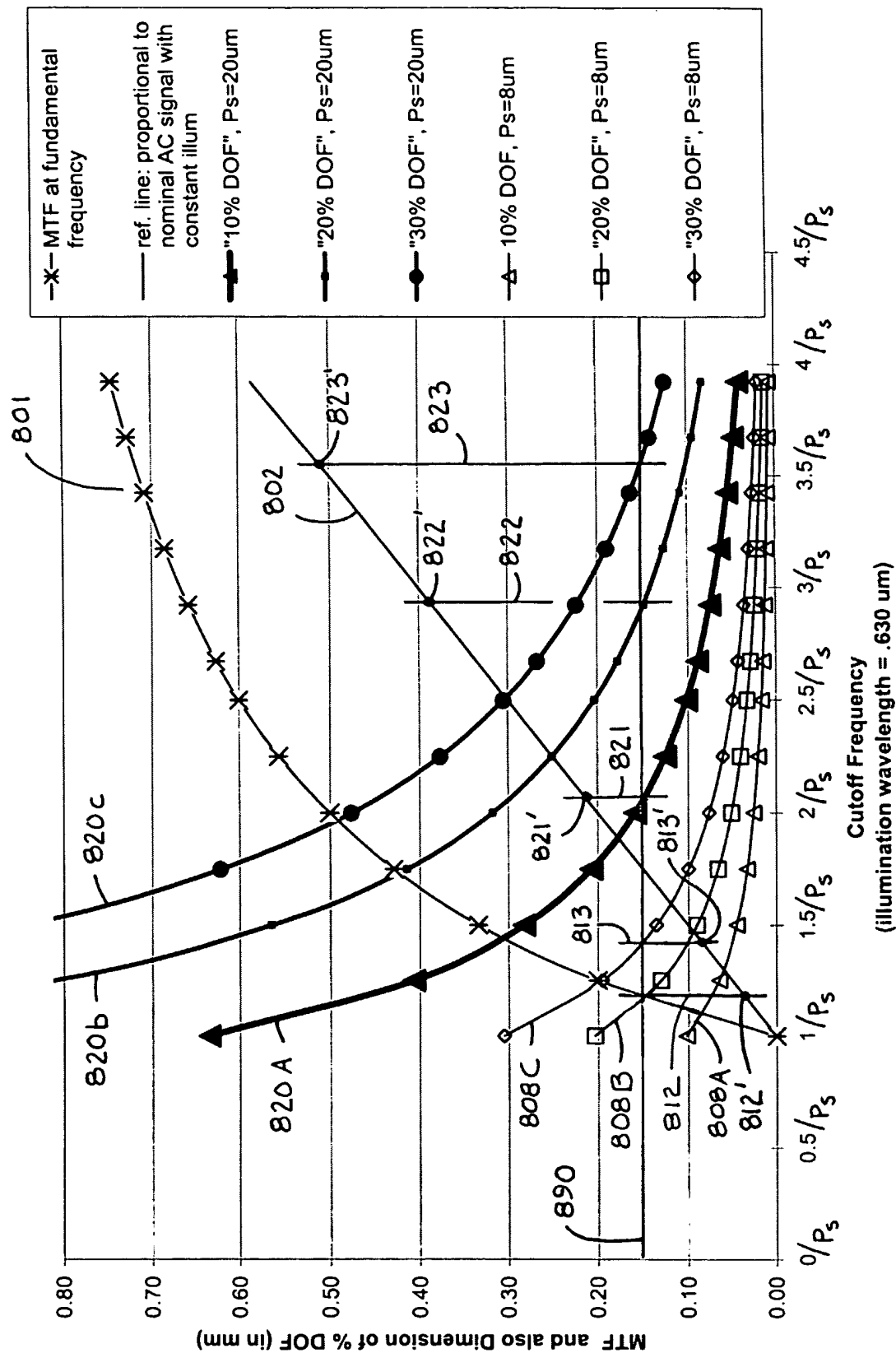


Figure 27

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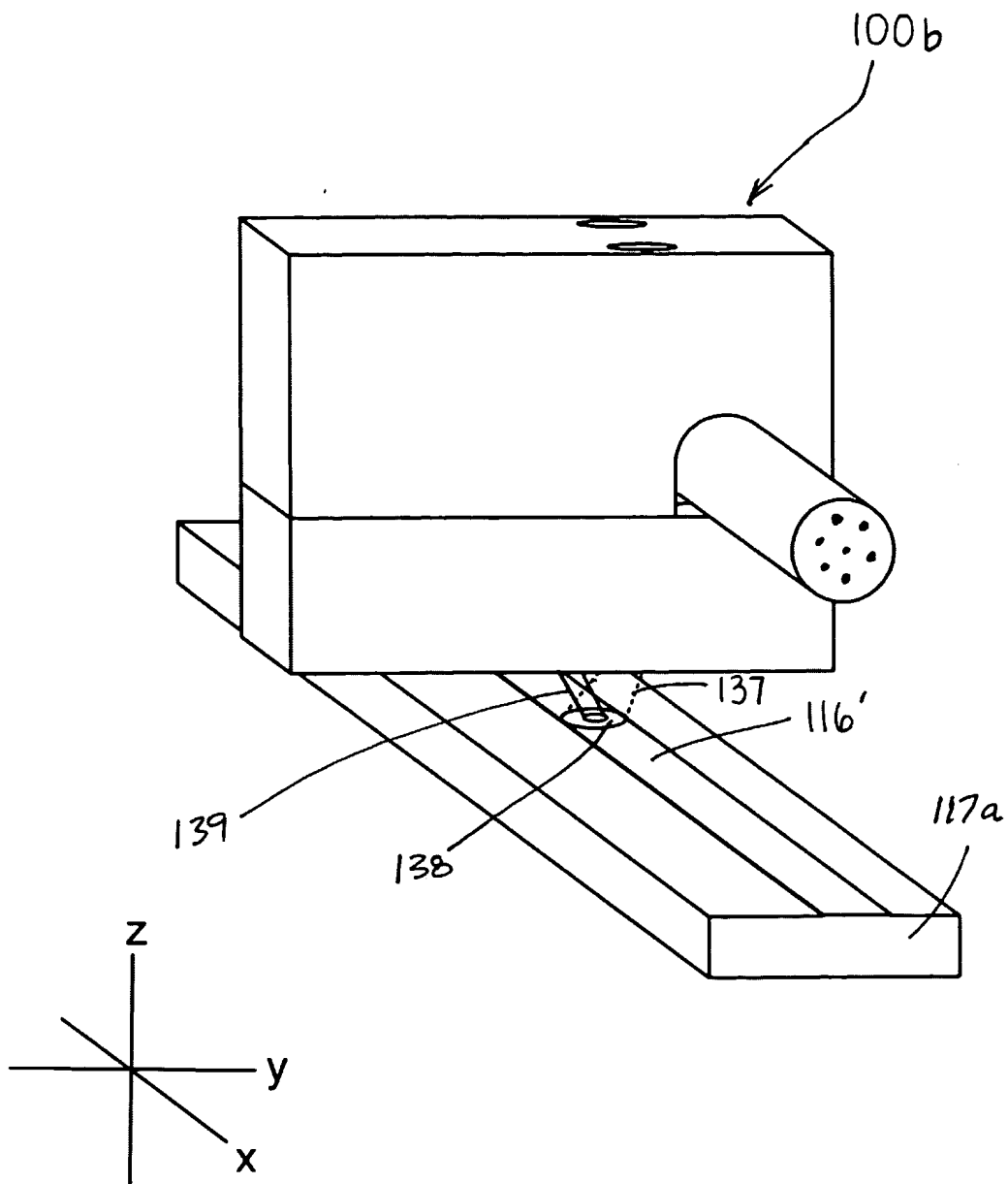


Fig. 28

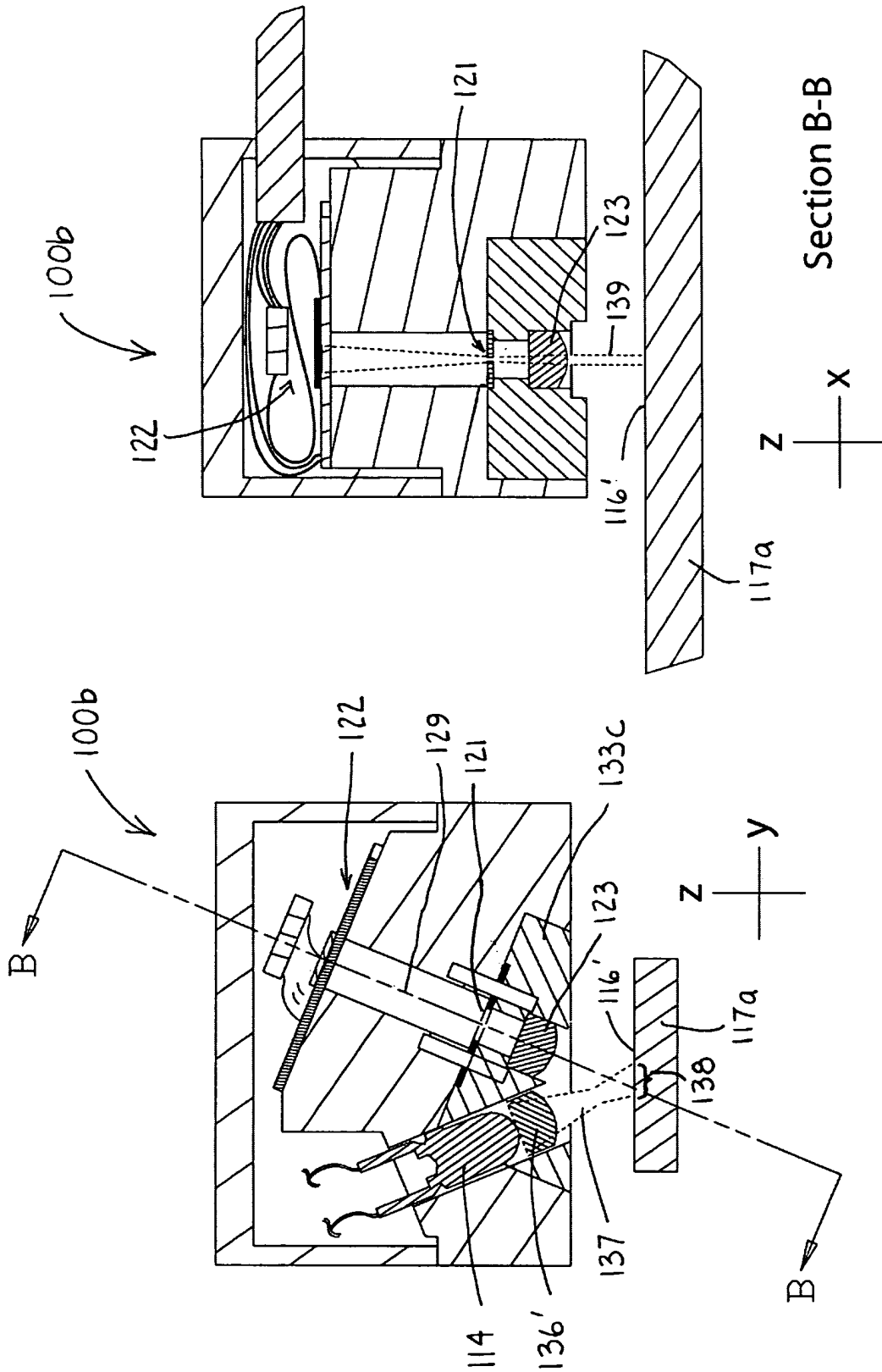


Figure 29B

Figure 29A

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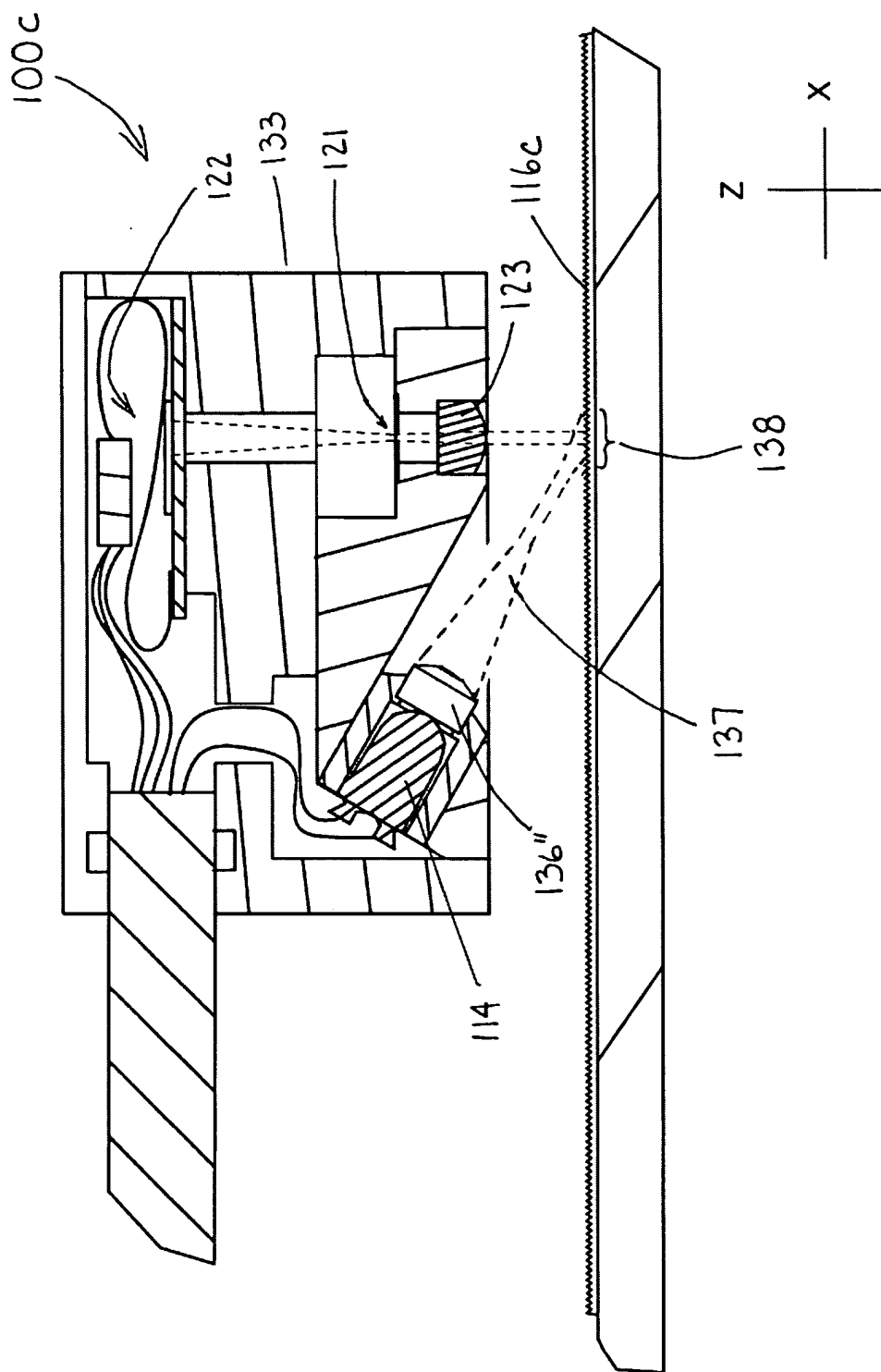
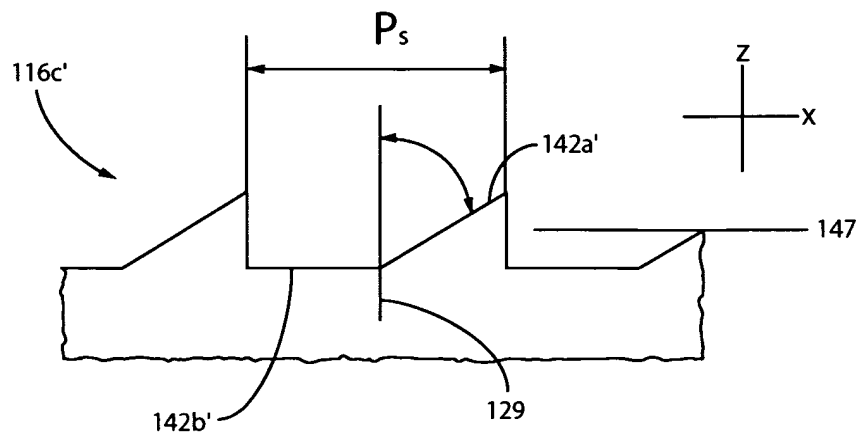
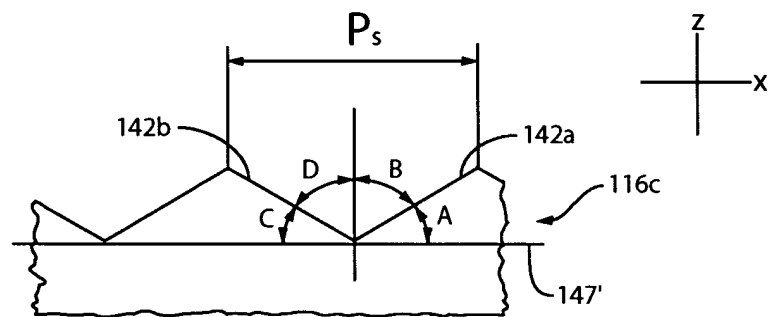
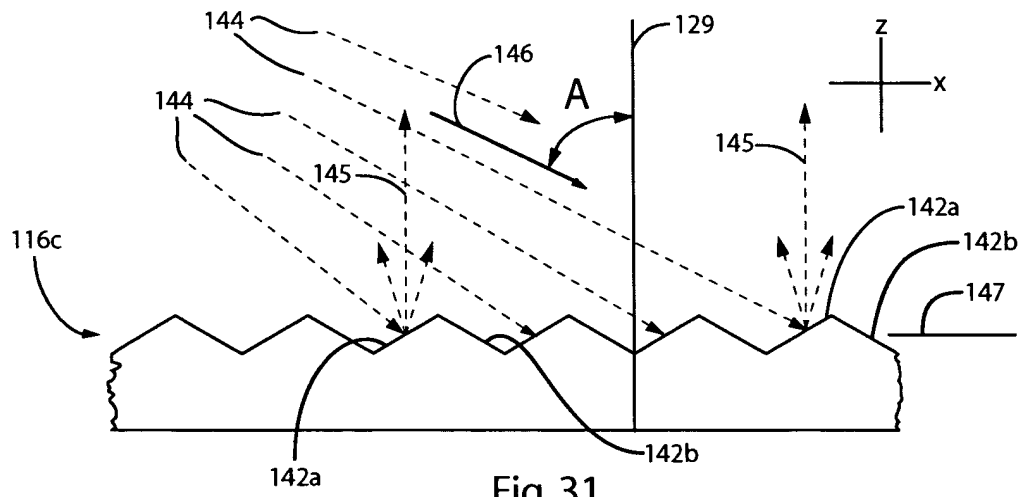


Figure 30

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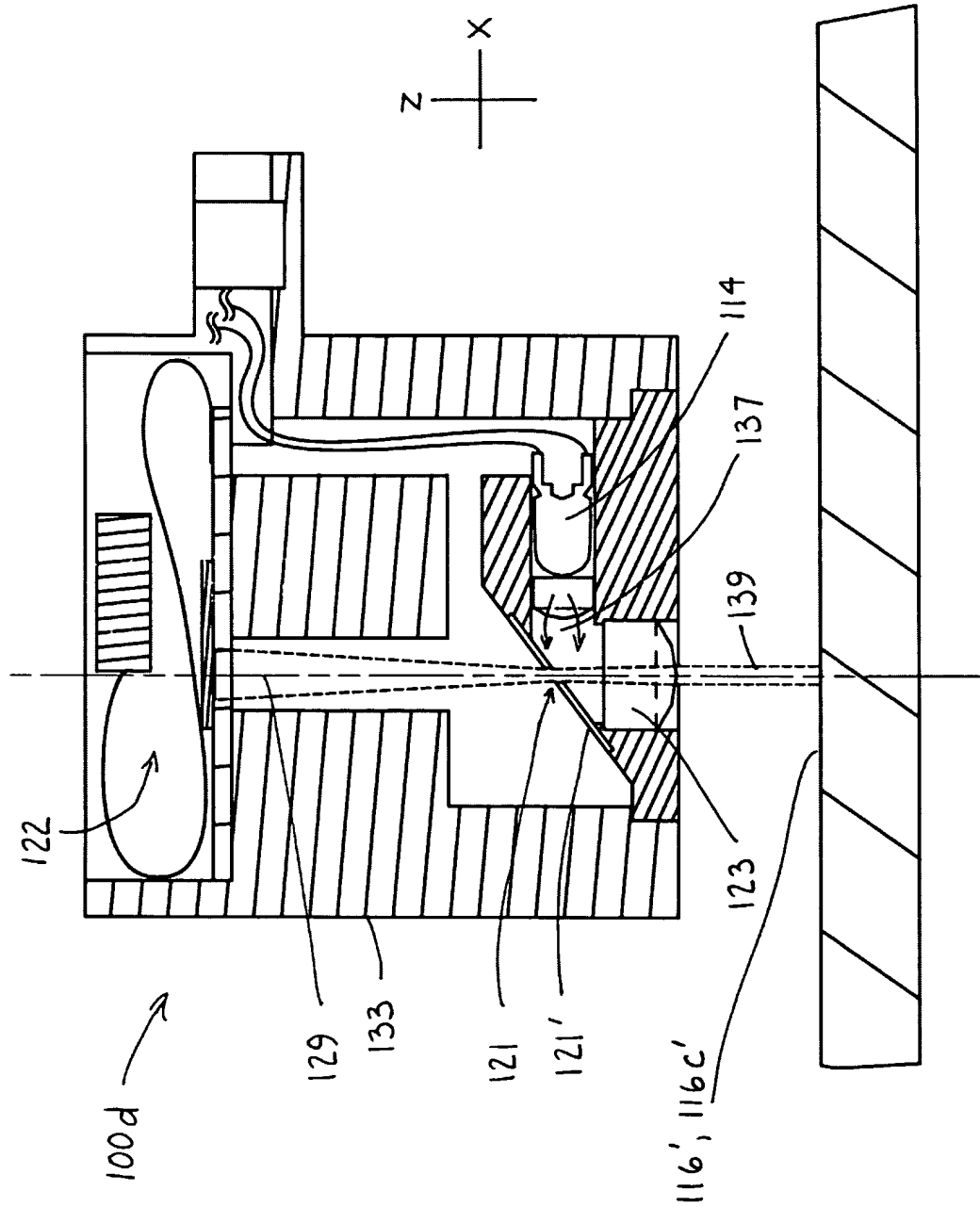


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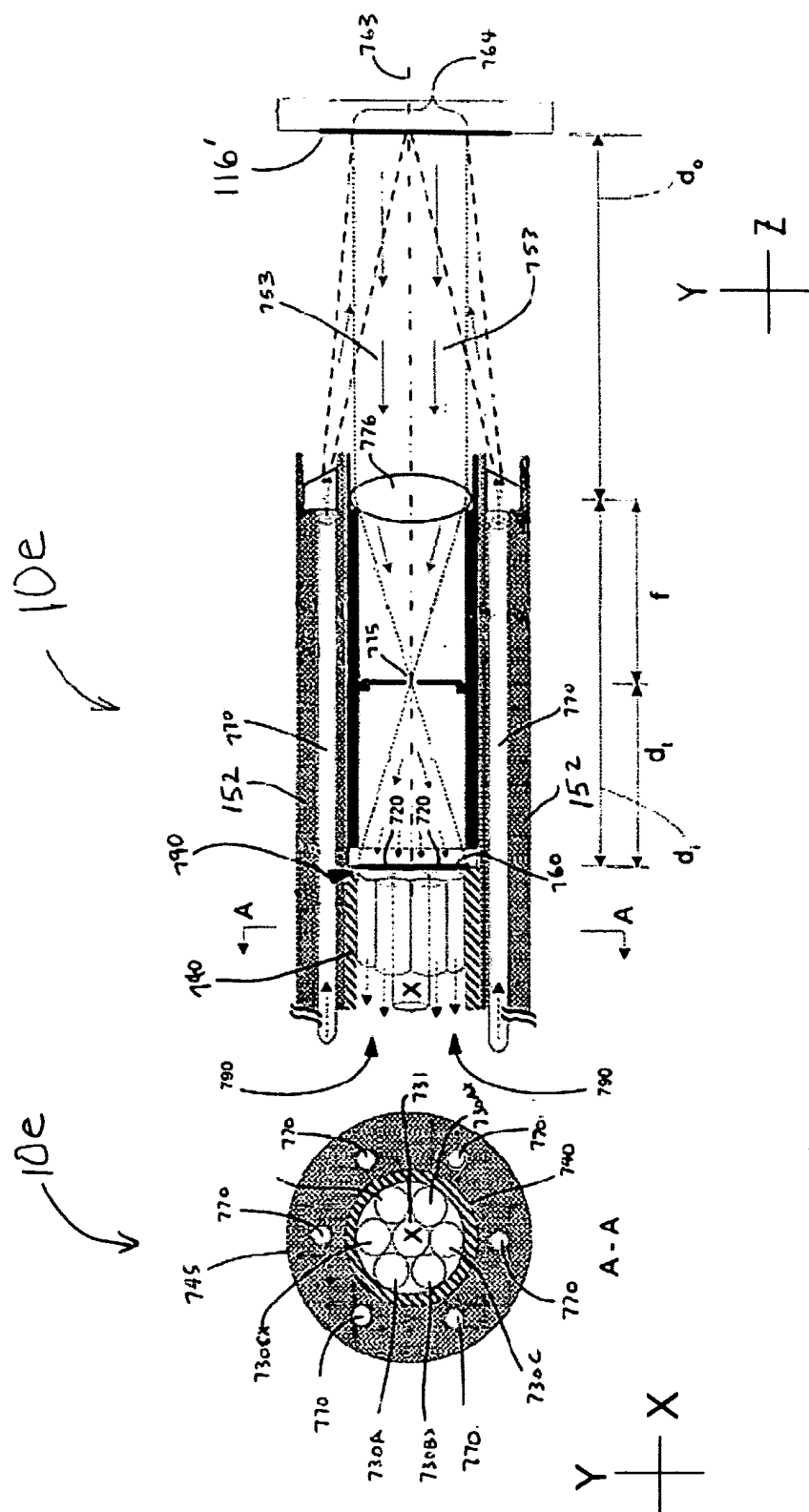


Fig. 35A

Fig. 35B

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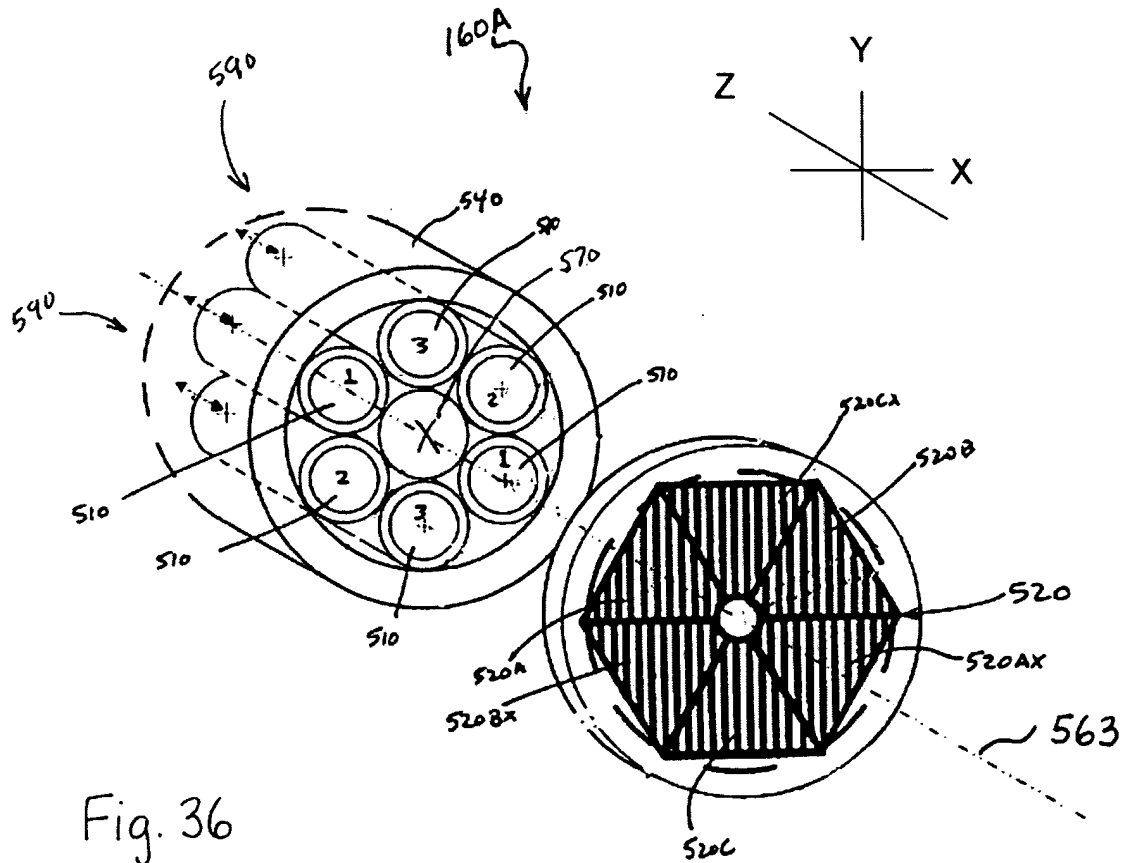


Fig. 36

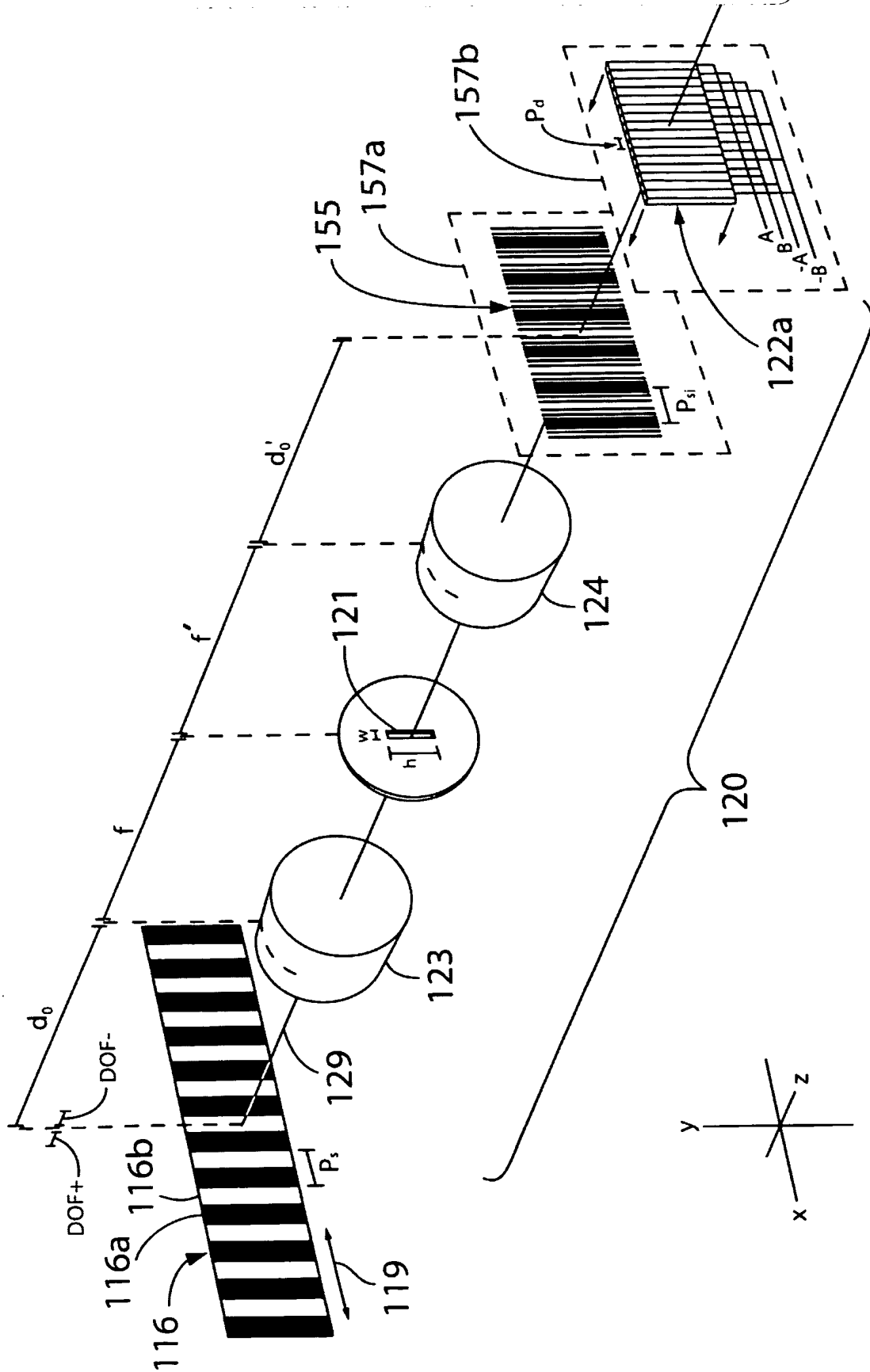


Figure 37